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CLARK COUNTY
WASHINGTON

May 18, 2006

Mr. Dave Peeler
Water Quality Program
Washington Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Dear Mr. Peeler:

RE: Comments on the Draft NPDES Western Washington Phase I Municipal Stormwater Permit

Clark County appreciates the opportunity to comment on the draft permit. The attached comments list possible concerns where wording does not meet the likely intent or is unclear, note several permit requirements where possible alternative approaches are suggested, and in some cases proposes alternative language for Washington Department of Ecology to consider in drafting the final permit. Some specific areas of concern are highlighted below.

Clark County has worked hard to develop and implement the stormwater management program under its current permit and believes that these efforts have lead to better protection of Clark County streams from harm caused by stormwater runoff. We recognize that the program should adapt and change to improve how the county protects its waterways from harm caused by stormwater runoff.

The February 15, 2006, draft NPDES phase I municipal stormwater permit is a significant improvement over the preliminary permit released in May 2005. The draft permit provides a further refinement of the original permit issued to Clark County in 1999 and most of the provisions in the permit can be largely met by the current Clark County program.

However, there are significant areas where the permit could be better aligned with the actions that permittees such as Clark County believe are most important for protecting waters of the state through stormwater management.

**Overall Cost**

Conservative cost estimates to implement the permit requirements are at least $1.2 million to $1.5 million per year. This does not take into account revenue lost due to planned City of Vancouver annexations of developed areas. Under the current funding scheme, the increasing costs for new permit actions and lost revenue will cause the program to consume its stormwater capital reserve fund within three to four years.

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**Measurable Improvement vs. Increased Cost**

It is not clear how this increase in spending for additional stormwater characterization monitoring, treatment BMP effectiveness monitoring, implementation reporting, and detailed private connection mapping will reduce pollution and improve the health of county water bodies. If Ecology can demonstrate how this will happen, please do so.

**Performance Measures**

The draft permit approach to implementing the stormwater management program is a major departure from the previous Washington municipal permits. The draft permit's use of prescribed performance measures for compliance places a burden on the permittee's review to discern unintended consequences of permit language that could make compliance difficult or impossible.

There is also concern about the possibility that permittees will be out of compliance with the permit if a single scheduled performance measure is missed. Please structure the new permit to acknowledge that implementing the stormwater management program is the primary permit compliance measure and reduces pollutants to the Maximum Extent Practicable; individual performance measures provide a measure of the success of implementing the program. Permit compliance should not be a "stormwater management program pass/fail" based on each individual performance measure.

**Adoption of the 2005 Western Washington Manual**

Clark County is currently implementing development and redevelopment requirements of the 1992 Stormwater Management Manual for the Puget Sound Basin as required by the 1999 NPDES permit issued by Ecology, actually adopting most of the manual provisions in 1994. There are tremendous changes in approach between the 1992 manual and the 2005 Stormwater Management Manual for Western Washington. Because of this, it is unrealistic to believe that a county which has been following the 1992 manual since 1994 can revise its development regulations and effectively implement them within 12 months. The adoption process alone could take four to six months to traverse the required steps to meet GMA-mandated approvals by both the planning commission and county commissioners.

Also, before the new development requirements are applied, county staff and the regulated community will need time to be trained and revise a number of procedures to implant the revised code.

We suggest a period of at least 18 months to adopt the minimum requirements, train staff, and establish revised development review and inspection procedures.

**Many Incremental Changes at Once**

Many of the permit requirements are updates to current standards with relatively small incremental change in water quality protection. One example is source control and stormwater facility

maintenance practices equivalence to the 2005 manual. Once again, can Ecology explain the actual water quality improvement due to these immediate and relatively small incremental changes to an existing program?

Sincerely,

Marc Boldt, Chair
Clark County Board of Commissioners

MB:aj

1 Attachment:
Comments on Draft NPDES Western Washington Phase I Municipal Stormwater Permit

cc: Peter Capell, P.E., Public Works Director/County Engineer
Bill Barron, County Administrator
Bronson Potter, Senior Prosecuting Attorney
Earl Rowell, Water Resources Program Manager

# Draft Comments on the Feb 15 Draft Phase I NPDES Municipal Permit

## Added comments from other sources at the end

| Municipal Permit Requirement | Comment to Ecology |
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| **Performance Measures** | • There is a good deal of concern about the possibility that permittees will be out of compliance with the permit if a performance measure is missed. Please structure the permit to acknowledge that implementing the SWMP is the permit compliance measure and that to the extent possible, individual performance measures provide a measure of the success of implementing the program. It can't be a SWMP pass/fail based on each individual performance measure. |
| **Many Minor Revisions and Reporting** | • Phase I SWMPs were set in motion by the 1995 and 1999 permits and this permit will be an adjustment to the current programs. Also, during the last few years, stormwater program activities such as road maintenance BMPs have been influenced by ESA salmon recovery efforts.<br>• Many of the permit requirements are updates to current standards with relatively small incremental change in water quality protection. One example is source control BMP equivalence to the 2005 manual.<br>• Where there are revisions to existing standards such as O and M practices, allow greater lengths of time to implement them. Spreading the numerous upgrades over several years could provide the most effective program in the long run by providing sufficient time to ensure the quality of the new manuals and their implementation procedures.<br>• Imposition of additional reporting requirements may do little to reduce stormwater pollution or improve our programs' cost effectiveness. Consider permittee comments on specific reporting requirements.<br>• Limit reporting requirements to items that will be most useful for reporting SWMP implementation. |
| **S1.D. Permit Coverage and Permittees** | • Consider how the stormwater permit might help address impaired water bodies that may be significantly influenced by stormwater from municipalities that are not defined by Ecology as Phase I or Phase II. It appears inconsistent to require permit coverage for ports and colleges but not towns and cities exempted from Phase II permits. |
| **S2.A.1. Authorized discharges into system.** | • How can permittees demonstrate that all discharges into the MS4s are in compliance with the permit? |
| **S2.A.3. Class V discharges** | • It would be more efficient if the NPDES/waste discharge covered stormwater discharges to Class V systems and not by rule under a separate regulation, Chapter 173-218 WAC. |
| **S2.B. Stormwater associated with NPDES** | • The way this is worded, it appears that a permittee would be out of compliance if one industrial discharge to the MS4 is occurring |

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| **regulated industrial activities** | without an NPDES permit. |
| **S4.A. Discharge of toxicants** | • How does implementing the SWMP provide for meeting this requirement? |
| **S4. Compliance with Stds.** | • Is compliance with this permit deemed to be use of AKART and controlling pollutants to MEP? Does it address S4.A. and S4.B.? |
| **S5. B SWMP Compliance with Stds.** | • Is the stormwater management program defined by the permit AKART and MEP? Consider stating that conducting the SWMP as defined by the permit is controlling stormwater pollution to the MEP and is using AKART. |
| **S5.C.2.a.i. Map outfalls and structural BMPs** | • It may not be possible to maintain an absolutely current map of all known outfalls and structural BMPs owned and operated by a permittee. Is the permittee out of compliance if one known outfall or structural BMP is not mapped? Permittees should have a program to map all existing structures and to ensure that new public structures are added to the inventory as they pass to permittee ownership and as privately-owned post-construction BMPs become operational.<br>• What exactly is a structural stormwater BMP that is required to be mapped? Is the intent to include catch basins and oil water separators, etc.?<br>• Require that connection points between municipal systems be mapped. Drainage areas may be not be to outfalls but to another permitted or non-permitted system. |
| **S5.C.2.a.ii. Map conveyances, drainage area, and land use for all 2 ft nominal outfalls in urban and high density rural areas.** | • The definition of higher density rural areas is a little unclear for areas outside the UGA. It should probably state that 50 percent of the subbasin area is parcels smaller than 5 acres. Don't add the qualifier "portion thereof" unless a more clear definition of what this means is included.<br>• This requirement should be revised to include mapping tributary conveyance for all outfalls in the urban growth area, not just 24 inch or greater.<br>• It should be a higher priority to complete a map of stormwater structures than to map every connection over 8 inches.<br>• Mapping associated drainage areas to all outfalls would be a major task. Keep it limited to a minimum area or outfall size threshold.<br>• What is the purpose of the land cover classification? Is it used in other parts of the permit? Defining the use makes it easier to decide how it should be done and what level of effort should go into it. If land use class is required, Ecology should standardize how permit categorizes "land use descriptions" so that data related to stormwater and outfall testing are comparable. Examples could be |

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| | criteria such as median parcel size and general land cover classification. Would TIA be adequate? |
| **S5.C.2.iii. Map all connections after effective date** | • What does the term "allowed" mean? Does allowing require that a written or verbal authorization be given? Or does it mean that there is now process to prevent it from happening?<br>• If permittees are required to map all connections, there must be a clear definition of what this entails. Under this, a pipe connected to a yard drain would be a connection. Would a residential driveway be a connection?<br>• While it's a good idea to identify all connections, it is a difficult permit requirement to meet. Features such as foundation drains and roof drains are often built under individual residential building projects, with no final plan drawings available.<br>• This requirement should be to maintain a map of known connections. |
| **S5.C.2.iv. Map 8" or greater connections** | • While it's a good idea to identify all connections, it is a difficult permit requirement to meet because there are very many of them and little or no records exist to identify or map many of them. This could include roof drains, foundation drains, sump drains, field drains, residential driveways, and so forth.<br>• Clarify the definition of 8 inch connection. Does this include ditches of eight inch nominal diameter? If so, this could include many rural residential driveways with ditches. Consider defining connections to not include individual single family residential driveway ditches but include private roads with more than one address or taxlot.<br>• It might be most productive to focus connection mapping to areas where there are known problems and land uses more likely to produce illicit discharges. This should include areas that do not drain to larger outfalls. |
| **S5.C.2.v. Areas not discharging to surface water** | • This requirement appears to require mapping of areas that have no discharges to surface water. For the purpose of implementing the permit and UIC regulations, there is not much use for this information because infiltration BMPs (regulated by the permit) and Class V systems (not regulated by the permit) are commonly built both in areas that drain solely to groundwater and areas that drain to both groundwater and surface water.<br>• Separating Class V wells and NPDES regulated structures into separate regulatory schemes is problematic. For example, one structural BMP could have a Class V system (drainage trench), an infiltration BMP regulated by the permit (grass lined infiltration area), and a discharge to surface water (larger flow bypass). |

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| **S5.C.3.b.i. Intra-governmental coordination** | • Why does a permittee need an agreement with itself to implement the permit requirements? The principal executive should have authority to direct departments to implement the permit and coordinate activities accordingly.<br>• Wouldn't completing the activities and reporting them in the annual report be adequate?<br>• Where needed to implement the permit, intra-governmental agreements will be put in place whether they are required or not. |
| **S5.C.3.b.ii Coordination with Permittees** | • 12 months is a short time to draft and adopt agreements with several permittees. Especially permittees that do not have organized stormwater management programs at the time of permit issuance. Could this be delayed until Secondary permittees and Phase II permittees have developed stormwater programs to the point where reasonably drafted agreements can be made. Perhaps by the end fourth year?<br>• Permittees will probably coordinate voluntarily to attain results that are in their best interests. If there is an unmotivated permittee, this requirement will not change anything and a hollow agreement will be drafted simply to meet the permit requirement.<br>• Where permittees deem them necessary, written agreements will be used. Probably the best example is shared or exchanged services in monitoring, education programs, and street waste management.<br>• What if an MS3 or Phase II MS4 is uncooperative or unable to enter into an agreement with a Phase I permittee and the performance measure is not met? Would the Phase I permittee be out of compliance?<br>• The requirement to coordinate monitoring is not appropriate for the S5 condition. It should be part of S8 if permittees exercise the option to perform no coordinated monitoring. |
| **S5.C.5.b.ii. Road Projects** | • Can Ecology consider allowing the WSDOT manual for the permittee's road projects? |
| **S5.C.5.b.iii. Source Reduction BMPs** | • Aren't these BMPs in the manual under minimum requirement 5 and Chapter 5 of Volume V? Chapter 5 references the Puget Sound Action Team's LID manual and Volume III, Appendix C addresses design and flow modeling. |
| **S5.C.5.b.iv. Deadlines** | • The 12 month timeline is considered impracticable by the Department of Community Development. Changes in the code will be major: flow control sizing, use of a continuous model to size flow control and treatment facilities, more complex treatment facility selection, possible changes in approval process.<br>• Realistically, the program to implement the code revisions should be in place the day when it is required to be adopted by the permit. |

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| | Implementing the new code effectively will require hiring additional staff, and training development review and inspection staff to enforce the new requirements.<br>• For Clark County, which unlike the Puget Sound permittees had no requirement to begin using the 2001 or 2005 manual in its permit, a longer period of time should be allowed for the adoption of the manual for post-construction BMPs, probably 18 months.<br>• One option may be to consider earlier adoption of the construction phase standards separately from the post construction BMPs to align local code with the NPDES general construction permit. |
| **S5.C.5.b.vi. Process deadlines** | • It might be more effective to implement the process deadlines at the time the code revisions are made. If that is done, adopting code revisions should be moved to 18 months. |
| **S5.C.5.b.vii NOIs** | • The current NOI is on the Ecology Web page. Can the permittee refer development project proponents there? |
| **S5.C.6.a. Structural controls** | • Maybe reword the first sentence to state "…disturbances to watershed hydrology and pollutant discharges caused by MS4"?<br>• The inclusion of habitat acquisition and forest cover restoration is a good idea.<br>• Clearly define habitat restoration to include stream channel restoration projects.<br>• Permittees will need to collect and maintain data to develop and implement the SSC program. Possibly state that permittees shall collect water quality, biological, and hydrologic data sufficient to support planning and development of the structural stormwater controls program. |
| **S5.C.6.b.i Structural Stormwater Controls performance measures** | • The performance measure states permittee "shall develop and begin implementing a SSC program *designed to control stormwater impacts that are not adequately controlled* by other required actions of the SWMP". How does the permittee know when they have met this measure? Is it by beginning the program or is it having a program to fully control stormwater impacts not adequately controlled by other actions under the permit?<br>• This should include language that indicates that the SSC program will only "begin" to address the stormwater impacts not controlled by the other actions of the SWMP and existing development.<br>• Does Ecology anticipate that there will be a uniform way that permittees will be able to quantify, calculate, or define the "impacts not adequately controlled by the other actions of the SWMP"? |
| **S5.C.6.b.iii. project info** | • Ecology should specify standard methods for estimating load reductions and other benefits to receive comparable results from permittees. |

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| | • Other methods to estimate benefit might include acres of pollutant generating surface provided basic treatment or some other standardized metric based on standard design criteria.<br>• Would these measures establish criteria to measure the project's ability to control stormwater impacts not adequately controlled by other actions of the SWMP? |
| **S5.C7.a.i. BMP requirement** | • This section should reference the list of land uses in Appendix 8 if that is the intended list. |
| **S5.C7.a.iii. Enforcement** | • Does applicable sites mean those listed in Appendix 8? |
| **S5.C.7.b.i. Source Control Standards** | • In Paragraph 1, Reference Appendix 8.<br>• Each Phase I permittee already has a source control BMP manual, probably based on the 1992 SWMMPSB Volume IV. While there are changes between the 1992 manual and the 2005 manual, they may not warrant immediate revision as a means to improve stormwater pollution reduction. The real issue is probably better implementation the existing standards, not reviewing and revising to a slightly updated standard.<br>• Considering that source control regulatory programs are in place under the current Phase I permits, provide some flexibility on the schedule for updating code and BMP manuals. |
| **S5.C.7.b.ii. PGS inventory** | • Creating an accurate inventory based on business type is likely to be difficult for all permittees. In Clark County it would probably be based on taxlot characteristics tabulated for assessing stormwater fees: the presence of impervious areas assessed a stormwater fee and multifamily residences assessed a stormwater fee. The initial inventory would include every taxlot with a parking lot, non-residential building, and multifamily structures. This will be about 2000 taxlots if multifamily is defined as 4 or more units per taxlot. Realistically, only field screening will identify those sites that pose more or less risk as pollutant sources.<br>• As an alternative to creating a universal PGS inventory, it may be more appropriate to conduct the inventory and inspection simultaneously. Possibly consider methods defined by the CWP "USSR manual 11" for identifying pollutant hot spots. |
| **S5.C.7.b.iii Source Control Insp. Prog.** | • The 100% inspection requirement is not possible to meet because it may not be possible to legally gain access to sites identified through complaints.<br>• A more realistic standard would be to contact each site through a site visit and attempt an inspection. |
| **S5.C.8.b. overall compliance** | • Add a statement of overall IDDE compliance if actions in the component are being implemented as a program. |
| **S5.C.8.b.i. IDDE** | • Recognize that permittees have limited ability to respond to spills |

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| **Enforcement** | other than minor ones. They call Ecology for clean up.<br>• Provide additional time to develop procedures to address pollutants from an interconnected MS4. It will take some time to develop procedures for additional permitted MS4s created by the Phase II permit and secondary Phase I permittees. |
| **S5.C.8.b.ii(2) IDDE non-stormwater discharges reg.** | • Would potable water and pool water discharged to an MS4 that drains to groundwater infiltration BMP regulated under the permit need to be treated or would infiltration be adequate to protect surface water?<br>• It will be difficult to prohibit runoff from residential lawn and landscape watering. Could it be dropped and add education specific to lawn watering in the S5.C.10. education program?<br>• It is unreasonable to state that the permittee's education program must reduce runoff from lawn watering. It is not possible to enforce or measure. Can an NPDES permit require water conservation efforts? |
| **S5.C.8.b.iv. Non-IDDE staff training** | • The way this requirement is worded, it could include any county personnel that perform field work. How does the permittee know that this requirement is met?<br>• The training should probably be limited to functional areas related to the O and M of storm sewers and roads owned and operated by the permittee. Maybe others such as restaurant inspectors and animal control enforcement officers should periodically be reminded where to report water quality problems. |
| **S5.C.8.b.v. IDDE Citizen Complaint Line** | • A phone listing specifically for water quality complaints is not a requirement of the current Clark County permit. Please make the implementation date after the permit effective date. |
| **S5.C.8.b.vi Outfall screening** | • The Center for Watershed Protection IDDE guidance manual notes that the Outfall Reconnaissance Inventory (ORI) should be adapted to the needs of the permittee. These differ significantly from the process identified by the ORI.<br>• The approach of the ORI is to conduct field surveys by walking streams. This is not a practical means to screen MS4 outfalls in Western Washington where dense vegetation, including impenetrable Himalayan blackberry thickets make traverses extremely difficult in most urban streams.<br>• Our experience has shown that stream surveys to spot oufalls are only successful during winter months when some of the vegetation has no leaves. This greatly reduces the available time window to conduct this work and conflicts with the need to conduct the ORI during dry weather.<br>• The permit language could specify that outfall screening should |

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| | address known outfalls for some amount of stream miles within the UGA before the annual report for the final year of the permit. |
| **S5.C.8.b.vi (2) Outfall screening schedule** | • The prioritization should allow flexibility to include outfall screening in non-urban areas where the permittee has determined it to be a priority. Examples could include subwatersheds where a stormwater capital plan is being developed and areas where a TMDL is being implemented. |
| **S5.C.8.b.vii (1) Response/investigations** | • Programs probably treat illicit connections and illicit discharges as one set of problems addressed by outfall screening. An illicit connection is most likely discovered by spotting an illicit discharge. In most cases discharges are ongoing from an illicit connection but could be related to an occasional spill to a storm drain.<br>• The ORI classifies outfalls as having obvious, suspected, potential or unlikely illicit discharges<br>• The outfall screening could find multiple "obvious" and "suspected" illicit connections/discharges each year. Depending on the results and severity of the suspected and obvious illicit connections/discharges, it may not be possible to initiate an active investigation of each within 21 days.<br>• Obvious illicit connections should be addressed differently than suspected discharges with immediate identification and referral to the proper enforcement agency.<br>• An alternative option is to reference the CWP guidance manual as guidance for follow up response to suspected illicit connections/discharges. It includes approaches to prioritize further investigation. |
| **S5.C.8.b.viii. Spill Response Process** | • This should be two separate requirements. One should be that the permittee describe their ability to respond to spills and have agreements in place with local and regional spill responders. Most permittees have very limited ability to clean up spills, relying on reporting spills to the Department of Ecology for spill response.<br>• The other relates to investigating reports of potential illicit discharges that could include spills, which might be better placed under S5.C.b.vii. above<br>• Regarding the 7 day investigation requirement, will a permittee be out of compliance if it takes an average of 8 days to investigate a potential illicit discharge? Are these working days or calendar days? |
| **S5.C.9.b.i. O and M Standards Equivalent to 2005 SWMWW, Vol. 5** | • Clark County adopted maintenance standards in 2000 that combined the best available information from ODOT, the draft Tri County agreement, the 1992 Puget Sound stormwater manual, the |

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| | King Co. 1998 manual, and other sources. The standards are less detailed in some aspects but are probably equivalent to the 2005 manual. Other permittees are probably in a similar situation. Considering this, it should not be an immediate priority review and revise. Once the standards are revised by adopting the 2005 manual, the standards should be applied to all existing storm sewer systems to the extent law allows.<br>• Small capital projects may not be possible to accomplish in 2 years if there are many of them. The cost and staffing to address larger projects less than $25,000 may not be known if a permittee has not been applying the 2005 standards and estimating repair costs. Consider placing some limit on the total cost of projects per year as a portion of the maintenance budget, and/or allowing a method to prioritize projects that are critical to protection water quality.<br>• What if a permittee inspected all facilities during one year? That would set up a scenario where all facility defects are required to be repaired within 2 years.<br>• In some cases, projects may need environmental permits. Timing of these permits is beyond the control of the permittee and can delay projects for at least a year. The permit should allow for project delays caused by long timelines for obtaining permits from state and federal agencies. |
| **S5.C.9.b.ii(1) Private Facility Standards into Code** | • Current standards are considered effective and include inspection schedules. This requirement could be to review the current standards and practices to improve private facility pollution control. This does not need to be accomplished within the first year of the permit. Reviewing and revising all maintenance requirements is not a pressing issue.<br>• Ideally, the change of O and M to the new standards would begin after all stormwater code revisions to adopt Ecology's 2005 stormwater manual are completed.<br>• Other timing issues could involve updating databases that track inspections and maintenance actions. The database would be finalized once the exact standards are formally adopted. |
| **S5.C.9.b.ii(2) & (3) Private Facility Insp. Schedule** | • Sites built before code revisions of 1994 are not accessible because an inspection easement was not required.<br>• As a practical matter under the permit, routine annual inspections of private facilities should be limited to facilities that have inspection and maintenance easements. |
| **S5.C.9.b.iii(1) Inspection program** | • Rewrite to place the word annually on line 33 as: "program to *annually* inspect all permanent…" |
| **S5.C.9.b.iii (2) 10 yr event** | • If a large storm event causes widespread damage requiring repairs, |

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| | the schedule in S5.C.9.b.i. may not be attainable. For example, there could be numerous sites where outfalls are damaged by slope failures or erosion. Consider that critical projects can be prioritized and be a fraction of the overall maintenance budget.<br>• In cases related to outfalls or other infrastructure adjacent to water bodies, environmental permitting could cause delays beyond the control of the permittee. Some language to address this is needed. |
| **S5.C.9.b.v. Records** | • What is the degree of record keeping required to be in compliance? For example, is there a need to track every component, defect and repair to meet the standards in Volume V? |
| **S5.C.9.b.vi. Road Maintenance** | • Ideally the permit could either reference or allow the Clark County O and M BMP manual (http://www.clark.wa.gov/water-resources/documents/Publications/wqbmp-m&o.pdf) and the ESA Regional Road Maintenance Program as acceptable standards and programs for Clark County. |
| **S5.C.9.b.vii. Public Land BMPs** | • This is already part of the current program that will continue under the next permit. Can the permit reference the existing program manual, code, and policies and continue their implementation?<br>• Is it necessary to require development of a series of IPM programs under a stormwater permit? Isn't a program to reduce pollutants adequate, and IPM could be one tool? |
| **S5.C.9.b.viii. Employee Training** | • Permittees use the ESA regional road maintenance program to address this for road-work related practices. It should be referenced as an acceptable program.<br>• Can Ecology provide examples of successful programs or guidance documents? |
| **S5.C.9.b.ix. SWPPP for facilities** | • In addition to the general industrial stormwater permit, reference the general Sand and Gravel Permit. |
| **S5.C.10.b.i. Education for targeted audiences** | • According to the outreach and education staff, it is probably not possible to measure actual changes in behavior. This would be an unreliable performance measure to meet because people often falsely report that they follow good behaviors. |
| **S5.C.10.b.ii. education for targeted audiences and problems** | • There will be problems with the requirement to measure changes in behavior. Permittees can probably influence awareness but do not control individual person's behaviors. Permittees should not be out of compliance if individual private citizens choose not to adopt the desired behaviors.<br>• The education program does not include pet waste, which is considered to be a significant bacteria source and contributes to failure of streams to meet water quality standards.<br>• Treat education like other requirements and presume compliance if the program conducts a standard set of actions that are considered |

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| | to be effective.<br>• Can Ecology provide examples of programs that are known to be successful at meeting the performance measures? |
| **S5.C.10.b.ii(2) Pesticide and fertilizer reduction through natural yard tech.** | • Clark County relies heavily on school based education to educate future adults to reduce or eliminate pesticides and fertilizer use. Please reference this Clark County program in the permit. |
| **S5.C.10.b.ii(5) Development standards ed.** | • Drop this requirement because requirements under S5.C.5. should cover this for county staff who are required to implement the permit.<br>• Training licensed professionals is not a local government function. It would be better addressed through continuing education at universities, professional organizations, and state certification programs such as the WSDOT erosion control certification. Ecology should provide training in the application of the 2005 stormwater manual. |
| **S5.C.10.b.iii. Surveys of knowledge and behaviors** | • This requirement might fit better ahead of b.ii.<br>• Can Ecology provide a standard approach for measuring knowledge and behavior changes so that comparable data is gathered throughout each media market or the state? |
| **Monitoring** | • The permit should acknowledge that there are ongoing monitoring programs and projects that address S5. permit requirements and provide the basis for adaptive management and stormwater basin planning.<br>• Clark County continues to monitor receiving waters as a basis to assess overall program effectiveness. We believe status and trend monitoring is a reasonable activity, but recognize that it is also a regional responsibility to be undertaken by Ecology and regional entities such as the Lower Columbia Fish Recover Board. Additionally, permittees collect data to conduct stormwater basin planning and for special projects beyond the scope of the IDDE. Is this considered meeting a permit requirement?<br>• Possibly, the permit's approach could be to continue the permittee's current programs with the understanding that each permittee will have different monitoring needs and will need to tailor its program to meet them. |
| **S8.A. Stormwater Monitoring** | • Development of monitoring plan and QAPP to address the stated objective of monitoring trends in pollutant loading (and possibly receiving water conditions) would probably produce a plan much different that the prescriptive requirements of the permit. Consider allowing individual permittees to develop plans to measure long-term trends.<br>• Permittees should be allowed the option to conduct receiving water |

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| | monitoring to assess trends for hydrology, biological integrity, water quality, and physical habitat in stormwater influenced or dominated streams. Perhaps the permit should be structured to provide for stream monitoring as an alternative minimum requirement.<br>• The cost for the proposed year-round stormwater monitoring would cover a fairly elaborate receiving water monitoring program inside the UGA. Along with providing trend analysis, monitoring data from stormwater dominated or influenced receiving waters can be used by the state to describe beneficial use impairments. The SWMP would use the data to identify pollutant sources, estimate pollutant loads to streams, and plan mitigation projects. |
| **S8.A.1. Stormwater sites** | • It appears that the intent is to operate the sites for more than one permit period. The permit does not specifically state duration other than that the sites be suitable for permanent installation of monitoring equipment.<br>• Are the sites intended to be used for multiple permit cycles? It would seem that to meet the primary objective for trends in loading, the sites would need to be stationary over multiple permit terms.<br>• Do sites need to be completely built out to limit factors from land development that would confound trend analysis?<br>• Land cover should be accurately defined if the purpose is to pool data for comparable sites or rank sites according to land use metrics. The land use descriptions are too vague.<br>• What other basin characteristics need to be collected to help compare stormwater results between basins? Some examples might be slope, soils, air quality, area, age of development, EIA, area treated by BMPs, etc.?<br>• Would small seasonal or perennial, non-fish bearing streams be acceptable as monitoring sites instead of stormwater outfalls? |
| **S8.A.2.b. Stormwater parameters** | • The QAPP should determine how the monitoring objectives are met. Are all of these parameters required to determine loading trends? What about using previous monitoring data to remove parameters that do not routinely exceed MRLs by a factor sufficient to measure trends?<br>• Instead of colleting data and then dropping those that are routinely below detection limits, a monitoring project should start with an understanding of which pollutants will need to be measured to reliably provide the data needed to meet the monitoring objective. |
| **S8.A.2.b.vii. &viii. pesticides and PAHs** | • Monitoring for trends in trace pollutants such as PAHs and pesticides probably would be better accomplished by means other |

## Added comments from other sources at the end

| Municipal Permit Requirement | Comment to Ecology |
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| | than stormwater monitoring. The basis for stormwater monitoring, vs. other methods is not established in the fact sheet. |
| **S8.A.2.c. First flush toxicity** | • Wouldn't first flush data be extremely variable from storm to storm and year to year? How many first flush events will be required to begin to discern trends with time by land use? |
| **S8.A.2.e. Sediment sampples** | • There should be some explanation in the fact sheet or permit of how sediment sampling will meet the stated objective of monitoring pollutant loading trends. |
| **S8.A.3. Stormwater Monitoring Objective** | • This statement should be the basis of the QAPP and drive the site selection, schedule, parameters, and data uses. Much of the QAPP should have been developed to the project plan level required for the actions specified in the draft permit.<br>• Can Ecology provide guidance on how to cost effectively collect data required to meet the objective to measure and track long-term trends in loading?<br>• The permit and fact sheet should explain how this program, including costly sampling for trace contaminants such as pesticides that are often undetected in stormwater, would be able to meet its objective of producing data to describe loading trends.<br>• Given the great deal of uncertainty about the ability of the stormwater monitoring requirement to meet the stated objective within the permit term, it might be wise to start with a less elaborate system and build upon successes each permit term.<br>• If data is required for bio-accumulative toxins, perhaps some type of tissue monitoring from organisms or artificial substrates would be more appropriate.<br>• Would biological and other monitoring in stormwater dominated streams be adequate to determine trends?<br>• If programs have already been designed elsewhere to accomplish this objective, the permit and the fact sheet should reference them. |
| **S8.B.1. Targeted action effectiveness** | • The "questions" are statements or areas of research, not questions.<br>• This requirement has the potential to produce good information to better manage stormwater. The decision to include the problem and hypothesis in the design is key. |
| **S8.C. Stormwater BMP testing** | • Past discussions between permittees and Ecology have concluded that we all would like better information about the effectiveness of the BMPs in Ecology's stormwater manuals. However, the consensus that the state should be conducting this activity as part of the ongoing research and development of their stormwater BMP guidance manuals. |
| **S8.C.2.b. Post Construction BMP testing** | • Few facilities will be built to the 2005 manual design standards until two to three years into the permit. It may also take several |

## Draft Comments on the Feb 15 Draft Phase I NPDES Municipal Permit

### Added comments from other sources at the end

| Municipal Permit Requirement | Comment to Ecology |
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| | additional years for vegetated facilities to "mature" as vegetation establishes itself. Considering this, it may be better to write the permit to allow monitoring of standard BMPs designed to the Puget Sound Manual or the 2001 manual. |
| **S8.C.2.c. BMP QAPP** | • Would it be acceptable to use the most current TAPE protocols to guide QAPP development if the permittee desires? What if QAPP guidelines are updated? Would the current version apply? |
| **S8.F.1. Reporting** | • Annual data reporting should not be required for multi-year projects because normal project reporting is separate from annual reports.<br>• The annual report should include progress reports for the projects and any significant findings that stormwater managers can use before the final report.<br>• Reporting criteria such as QC reporting, comprehensive data summary, annual loading, BMP performance, and project cost are all items that would be part of a final report. |
| **S9. Reporting** | • March 31 is too early a deadline considering that financial reporting is required. Also, numerous reports for monitoring projects and implementation monitoring require time to prepare while all other work continues. Updating the SWMP description is also a significant work effort.<br>• Clark County current reports on July 1st. May 31st might be a good compromise. |
| **G9. F. Lab accreditation** | • The field measurements following an approved QAPP or approved screening or IDDE program do not need to be sent to an accredited lab. Make this match the requirements of the monitoring components S5.C.8 and S8.<br>• In this requirement, provide a blanket exemption from lab accreditation for field parameters: D.O., turbidity, and any parameter included in an Ecology-approved QAPP.<br>• Are biological, and habitat parameters exempted from accreditation?<br>• Sediment? |
| **Appendix 1. Minimum Requirements** | • Include the WSDOT manual as minimum requirements for County Road Projects. |
| **Appendix 3. Form 3-2** | • Note that the General Instructions on page 3 and Instructions for specific components on page 4 – 5 are guidance and provide information on how the permittee uses existing expense reporting capabilities for completing the annual report<br>• If Ecology wants reporting on specific activities such as spill and illicit discharge response, they should include them on Form 3-2 Expenditure Report Form. |

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| | • The cost of source controls for maintenance of parks, Fleet, buildings and grounds, and other O and M actions will be tough to track. |
| **Additional Comments from various sources** | • |
| **S5.C.5** | • The permittee should have the discretion to allow only those manual BMPs that it deems to be effective at treating stormwater, cost effective to maintain and replace, and capable of being maintained through available legal authority. |
| **S5C6(a)** | • Program should include culvert removals that improve hydrology, especially when grades are abandoned and hydromodification of a channel or floodplain is lessened or removed. |
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